

Memorandum

DATE: SEPTEMBER 9, 2003

TO: UST Compliance Inspectors, UST Managers, EFOMs

FROM: Lamar Bradley

RE: Use of a video camera for inspecting lined tanks

We occasionally receive questions regarding our position on the use of a video camera to inspect lined tanks, and who may engage in that work. This will attempt to answer those questions.

Rule 1200-1-15-.02(2)(b)1.(ii) requires for lined tanks "Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications." No further information is given in the rules about what an internal inspection is.

Federal UST Rules reference an industry standard, NLP 631, that describes what must be considered during an internal lining inspection. Chapter B of that publication describes an internal inspection consisting of a visual inspection of the lining looking for flaws or defects in the lining including a holiday test, an ultrasonic thickness testing of the tank shell, and a determination of the hardness and thickness of the lining. This procedure requires manned entry into the tank.

In 1998-99 there was a desire on the part of companies who used video camera technology for assessing bare steel tanks for upgrading, to apply that technology to visual inspections of linings to comply with the 10-year and 5-year inspection requirements. In response to that concern, a well known third party evaluator, Ken Wilcox Associates (KWA) drafted a protocol describing a procedure for using a video camera combined with other testing that would be appropriate for evaluating lined tanks. This procedure would not require manned entry into a tank. A peer group as well as EPA evaluated this protocol.

On November 8, 1999 EPA sent a copy of the KWA protocol to each state saying, "...EPA believes that the KWA recommended practice meets the requirements necessary for conducting inspections of internally lined tanks as required..." I am not aware of any other such video inspection protocols which have been published and recommended by EPA. It is important that any internal inspection be conducted with a degree of thoroughness which ensures that the structure is sound and that the lining is still intact and accomplishing its purpose. With that objective in mind, we agree with EPA that an internal camera inspection performed according to the procedures described in the KWA Recommended Practice for Inspecting Buried Lined Steel Tanks using a Video Camera would be acceptable to meet the internal inspection requirement for lined tanks.

It is therefore Division policy that when lined tanks are inspected *using a video camera*, that the evaluation conform to the procedures described in the above referenced Protocol or they will not be acceptable to meet the requirement of the inspection required in Rule 1200-1-15-

.02(2)(b)1.(ii). This position *does not preclude* our acceptance of other protocols if they are later developed, published and deemed substantially equivalent to the KWA protocol.

To date, only two companies have requested approval from the Division to conduct video inspections of lined tanks. Since the Division had no direct "approval" authority for this we asked these companies to assure that they will conform to the KWA Protocol when conducting video inspections of lined tanks. Having received those assurances, letters were sent to Tank Tech, P.O. Box 17, Blodgett, MO 63824, (573) 471-1932, on May 5, 2000; and to Tanknology, 8900 Shoal Creek, Building 200, Austin, TX. 78757, 1(800) 800-4633, on June 19, 2001. Tank Tech's method is known commercially as Tank Scope and Tanknology's method is known as Petroscope. In addition, the Tank Tech method was evaluated by KWA in November 1999 and KWA agrees that the Tank Tech method conforms to the protocol.

If other companies wish to engage in this business we will expect the same assurances from them. In addition, we will request that a number of evaluations be submitted to determine if the evaluation was done in accordance with the KWA protocol.

Please contact me at (615) 532-0952 if you have questions about this memo.